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ABSTRACT

Based on recommendations of the Harvard Report on Reading, a 33-item instrument was sent to a small sample of school districts originally surveyed to see the amount of implementation a decade later. Because only a small sample was surveyed, the states are grouped into seven regions. Measures of implementation based on the percentage of "yes" responses were tabulated. Questions were then grouped into topics for further evaluation. Standard significance testing procedures were used when districts were grouped according to sizes. For each question and topic, respectively, significant differences between regions, between districts having under and over 20,000 pupils, as well as a composite of all districts, were noted. Correlation between responses to questions for a given size and region were analyzed. Conclusions were drawn regarding extent of implementations and dependence upon teachers' salaries, per capita income, and expenditures for education. (Author)

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# The Harvard Report on Reading, The First R, a Decade Later: A Measure of Implementation of Recommendations with Significant Regional and School Size Differences Examined

by

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## Introduction

Based on recommendations of the Harvard Report on Reading (2), a thirty-three item instrument was sent to a small sample of school districts selected from the original study to see the amount of implementation a decade later. To this end, a letter was sent out to Superintendents of school districts, along with an accompanying questionnaire.

CS001773

TABLE 1 Questionnaire

Number in School District:
_____ Over 20,000 pupils
_____ Under 20,000 pupils

Name of State_____

| Question | This represents current practices Yes | No | To be started by 9/72 |
|---|---|---|---|
| 1 All elementary schools have kindergartens. | | | |
| 2 Children who are reading when they enter kindergarten are provided with an appropriate reading curriculum. | | | |
| 3 Children who appear ready to begin to read when they enter kindergarten are provided with an appropriate reading curriculum. | | | |
| 4 The use of chronological age as an exclusive criterion for admission to kindergarten or first grade is currently being examined. | | | |
| 5 Experimental research programs to reexamine and reevaluate the content of existing pre-reading activities are currently in progress. | | | |
| 6 Many different methods (with a variety of approaches) are used in the teaching of reading. | | | |
| 7 Emphasis is placed on helping children develop proficiency in word recognition through meaning clues, visual analysis of word forms, and the use of dictionaries. | | | |
| 8 Emphasis in the beginning and continuing reading programs is on the concept and understanding the meaning of the printed page and not in word recognition. | | | |
| 9 A reading program is available in all content areas with appropriate reading skills being taught. | | | |
| 10 Other reading materials, such as trade books, reference books, newspapers, and magazines are used extensively (in addition to the basic readers). | | | |

| Question | This represents current practices Yes | No | To be started by 9/72 |
|---|---|---|---|
| 11 The material found in the teacher's guide for the basal readers is used as a guide and teachers are encouraged to create individualized materials. | | | |
| 12 Periodic review of the effectiveness of the basal reader workbook is carried out. | | | |
| 13 Children are permitted to cross grade lines with all reading material. | | | |
| 14 Classroom teachers participate in the construction, evaluation, and revision of curriculum materials in reading. | | | |
| 15 Extensive use of TV is part of the reading program. | | | |
| 16 Pupils are typically divided into three groups for basic reading instruction. | | | |
| 17 A flexible grouping plan for reading instruction is maintained in all classes. | | | |
| 18 Certified teacher's aides are engaged by the school. | | | |
| 19 The classification of students into a specific grade is currently being reevaluated. | | | |
| 20 Children participate in selecting their reading materials. | | | |
| 21 Some programmed learning materials are a part of the reading curriculum. | | | |
| 22 Gifted children are provided with curricula especially designed to meet their needs. | | | |
| 23 A program exists for early identification of the gifted and exceptional reader. | | | |
| 24 Special curricular material is available to prevent children from becoming disabled readers. | | | |
| 25 Specialists in reading are provided at each school and at each grade level. | | | |
| 26 A full-time certified teacher-librarian is engaged for each school. | | | |
| 27 The library contains the recommended number of volumes as suggested by the American Library Association. | | | |

| Question | This represents current practices Yes | No | To be started by 9/72 |
|---|---|---|---|
| 28 A cumulative record of a child's reading is kept and made available to successive teachers. | | | |
| 29 Parent-teacher conferences are obligatory in conjunction with written reports. | | | |
| 30 Parents are kept informed of the reading policies of the school system. | | | |
| 31 In order to obtain permanent teacher certification, an M.A. or M.A.T. degree is required. | | | |
| 32 In-service education programs are available to improve teacher performance. | | | |
| 33 Release time for teacher's continued in-service training is available. | | | |

A total of 274 school districts were contacted; of this group, 218 (or nearly 79 per cent) replied. 45 states were surveyed. School districts were selected from the original group of districts on the basis of whether or not the school was included in the following two categories: (a) the school district was on the original list surveyed in the Harvard study; and (b) the school district was listed in a document put out by the Office of Education of the U.S. Department of H.E.W. for 1970-71 (3). Wherever there was a match, the school district was included for this present study.

Questions were grouped into seven categories: (a) Special Services, (b) Grouping of Children in the Classroom, (c) Curriculum, (d) Methods, (e) Materials, (f) Research and Evaluation, and (g) Parents.

Questions were tabulated and the number of "YES," "NO," "NO ANSWER or NOT APPLICABLE" responses were evaluated for each state and the percentage of "YES" responses was calculated.

Table 2 presents state-by-state the data from the school districts. A major display problem is encountered, since there are 218 school districts and 35 questions, 33 of which were formulated from the original Harvard study, and a thirty-fourth which identified the state. This 218 x 35 matrix was read into the IBM 360-65 computer at the University of Kentucky and statistical computations carried out.

Table 2 presents the data from the 33 questions but includes an additional column which did not appear on the original questionnaire (Table 1), namely, a column labeled A, representing "NO ANSWER" or "NOT APPLICABLE." An example of a question whose indicated response of "YES," or "NO," or "TO BE STARTED IN 1972," is not appropriate can be demonstrated by examining Question 2: "Children who

are reading when they enter kindergarten are provided with an appropriate reading curriculum." Some school districts replied that theirs was an inner-city school and there had never been a case where a child came to kindergarten knowing how to read. Under these circumstances, the indicated responses do not have significance or application. In Table 2, the column labeled "IN 1972" is titled "S" for "SEVENTY-TWO."

TABLE 2 List of specific replies, state-by-state, to each of 33 questions.

| | ALA | | | | FLA | | | | ILL | | | | MAS | | | | SDK | | | | TEN | | | | UTA | | | | VA | | | | PEN | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Q | Y | N | A | S | Y | N | A | S | Y | N | A | S | Y | N | A | S | Y | N | A | S | Y | N | A | S | Y | N | A | S | Y | N | A | S | Y | N | A | S |
| 1 | 0 | 4 | 0 | 0 | 2 | 6 | 0 | 1 | 8 | 0 | 0 | 0 | 5 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 3 | 4 | 0 | 0 | 10 | 0 | 0 | 0 |
| 2 | 1 | 1 | 2 | 0 | 5 | 3 | 1 | 0 | 5 | 1 | 0 | 2 | 3 | 2 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 3 | 3 | 1 | 0 | 5 | 5 | 0 | 0 |
| 3 | 1 | 1 | 2 | 0 | 5 | 3 | 1 | 0 | 4 | 1 | 0 | 3 | 4 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 5 | 1 | 1 | 0 | 7 | 3 | 0 | 0 |
| 4 | 3 | 1 | 0 | 0 | 0 | 8 | 1 | 0 | 4 | 3 | 0 | 1 | 2 | 4 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 5 | 0 | 0 | 5 | 5 | 0 | 0 |
| 5 | 4 | 0 | 0 | 0 | 3 | 6 | 0 | 0 | 7 | 1 | 0 | 0 | 4 | 2 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 5 | 2 | 0 | 0 | 7 | 3 | 0 | 0 |
| 6 | 4 | 0 | 0 | 0 | 7 | 2 | 0 | 0 | 6 | 2 | 0 | 0 | 4 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 9 | 0 | 0 | 1 |
| 7 | 4 | 0 | 0 | 0 | 6 | 3 | 0 | 0 | 6 | 2 | 0 | 0 | 4 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 5 | 2 | 0 | 0 | 10 | 0 | 0 | 0 |
| 8 | 3 | 1 | 0 | 0 | 2 | 7 | 0 | 0 | 3 | 4 | 1 | 0 | 3 | 3 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 1 | 0 | 0 | 3 | 4 | 0 | 0 | 8 | 2 | 0 | 0 |
| 9 | 2 | 2 | 0 | 0 | 2 | 7 | 0 | 0 | 4 | 4 | 0 | 0 | 4 | 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 5 | 2 | 0 | 0 | 6 | 4 | 0 | 0 |
| 10 | 3 | 1 | 0 | 0 | 6 | 3 | 0 | 0 | 8 | 0 | 0 | 0 | 5 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 6 | 1 | 0 | 0 | 9 | 1 | 0 | 0 |
| 11 | 4 | 0 | 0 | 0 | 7 | 1 | 1 | 0 | 8 | 0 | 0 | 0 | 5 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 10 | 0 | 0 | 0 |
| 12 | 4 | 0 | 0 | 0 | 5 | 4 | 0 | 0 | 6 | 1 | 0 | 1 | 4 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 5 | 1 | 0 | 1 | 7 | 3 | 0 | 0 |
| 13 | 3 | 1 | 0 | 0 | 5 | 4 | 0 | 0 | 7 | 1 | 0 | 0 | 5 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 6 | 1 | 0 | 0 | 9 | 1 | 0 | 0 |
| 14 | 4 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 9 | 1 | 0 | 0 |
| 15 | 1 | 3 | 0 | 0 | 1 | 7 | 1 | 0 | 0 | 8 | 0 | 0 | 1 | 5 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 6 | 0 | 0 | 3 | 7 | 0 | 0 |
| 16 | 4 | 0 | 0 | 0 | 4 | 4 | 1 | 0 | 2 | 6 | 0 | 0 | 3 | 2 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 6 | 1 | 0 | 0 | 5 | 5 | 0 | 0 |
| 17 | 3 | 1 | 0 | 0 | 4 | 5 | 0 | 0 | 4 | 3 | 0 | 1 | 5 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 4 | 3 | 0 | 0 | 7 | 2 | 0 | 1 |
| 18 | 4 | 0 | 0 | 0 | 4 | 4 | 1 | 0 | 5 | 3 | 0 | 0 | 2 | 4 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 3 | 4 | 0 | 0 | 4 | 5 | 0 | 1 |
| 19 | 3 | 1 | 0 | 0 | 6 | 2 | 1 | 0 | 7 | 1 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 6 | 1 | 0 | 0 | 4 | 5 | 0 | 1 |
| 20 | 2 | 1 | 1 | 0 | 5 | 4 | 0 | 0 | 7 | 1 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 4 | 3 | 0 | 0 | 2 | 8 | 0 | 0 |
| 21 | 4 | 0 | 0 | 0 | 7 | 1 | 1 | 0 | 7 | 1 | 0 | 0 | 5 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 5 | 2 | 0 | 0 | 8 | 2 | 0 | 0 |
| 22 | 2 | 2 | 0 | 0 | 7 | 2 | 0 | 0 | 5 | 3 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 4 | 3 | 0 | 0 | 6 | 4 | 0 | 0 |
| 23 | 2 | 2 | 0 | 0 | 4 | 5 | 0 | 0 | 4 | 4 | 0 | 0 | 4 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 3 | 4 | 0 | 0 | 5 | 4 | 0 | 1 |
| 24 | 4 | 0 | 0 | 0 | 6 | 2 | 1 | 0 | 8 | 0 | 0 | 0 | 5 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 7 | 0 | 0 | 0 | 8 | 2 | 0 | 0 |
| 25 | 0 | 4 | 0 | 0 | 3 | 6 | 0 | 0 | 1 | 6 | 0 | 1 | 3 | 3 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 5 | 0 | 0 | 4 | 5 | 0 | 1 |
| 26 | 0 | 4 | 0 | 0 | 8 | 1 | 0 | 0 | 1 | 7 | 0 | 0 | 1 | 5 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 5 | 2 | 0 | 0 | 4 | 5 | 1 | 0 |
| 27 | 3 | 1 | 0 | 0 | 8 | 1 | 0 | 0 | 2 | 6 | 0 | 0 | 4 | 2 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 7 | 0 | 0 | 0 | 5 | 5 | 0 | 0 |
| 28 | 2 | 2 | 0 | 0 | 8 | 1 | 0 | 0 | 8 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 6 | 1 | 0 | 0 | 8 | 2 | 0 | 0 |
| 29 | 1 | 3 | 0 | 0 | 2 | 7 | 0 | 0 | 8 | 0 | 0 | 0 | 4 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 4 | 3 | 0 | 0 | 5 | 5 | 0 | 0 |
| 30 | 4 | 0 | 0 | 0 | 8 | 1 | 0 | 0 | 8 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 6 | 1 | 0 | 0 | 8 | 2 | 0 | 0 |
| 31 | 0 | 4 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 8 | 0 | 0 | 1 | 5 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 7 | 0 | 0 | 1 | 9 | 0 | 0 |
| 32 | 3 | 0 | 1 | 0 | 9 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 8 | 1 | 1 | 0 |
| 33 | 2 | 2 | 0 | 0 | 5 | 4 | 0 | 0 | 7 | 1 | 0 | 0 | 4 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 4 | 3 | 0 | 0 | 6 | 3 | 0 | 1 |

Because only a small sample was surveyed, the states are grouped into seven regions (Table 3), varying in size from four to 12 states (1). Data received from a given state raises significance questions and the responses will fluctuate between school districts of a given state as well as between neighboring states.

TABLE 3 Breakdown of the Regions (1-7), providing a list of the states which comprise each of the seven regions

| Region 1<br>North West<br>N = 10 | Region 2<br>South West<br>N = 42 | Region 3<br>South Central<br>N = 17 | Region 4<br>Mid-West<br>N = 72 |
|---|---|---|---|
| Alaska* | Arizona | Kansas | Illinois |
| Idaho | California | Missouri | Indiana |
| Montana | Colorado | Oklahoma | Iowa |
| Oregon | Hawaii | Texas | Michigan |
| Washington | Nevada | | Minnesota |
| Wyoming | New Mexico | | Nebraska* |
| | Utah | | North Dakota |
| | | | Ohio |
| | | | South Dakota |
| | | | Wisconsin |

| Region 5<br>South East<br>N = 35 | Region 6<br>Mid-Atlantic<br>N = 20 | Region 7<br>New England<br>N = 22 |
|---|---|---|
| Alabama | Delaware | Connecticut |
| Arkansas* | Maryland | Massachusetts |
| Florida | New Jersey | Maine* |
| Georgia | Pennsylvania | New Hampshire |
| Kentucky | | New York |
| Louisiana* | | Rhode Island |
| Mississippi** | | Vermont* |
| North Carolina | | |
| South Carolina | | |
| Tennessee | | |
| Virginia | | |
| West Virginia | | |

* Not queried

** Did not respond to questionnaire

## Results and Discussions

Measures of implementation based on percentage of "YES" responses were tabulated. It is not possible to evaluate the significance of these differences between regions solely on the basis of the mean percentage of "YES" responses; therefore, "t" testing was carried out. The process of ranking the regions according to the mean percentage of implementation was then carried out. Table 4, below, displays these findings.

TABLE 4 Regions of the country, ranked according to the per cent of implementation

| Rank Order of Implementation | Number of the Region | Name of the Region | Average % of Yesses ($Q_I$) | $\sigma_I$ |
|---|---|---|---|---|
| First | 6 | Mid-Atlantic | 66.67 | 22.94 |
| Second | 4 | Mid-West | 64.52 | 24.85 |
| Third | 2 | South West | 64.36 | 26.38 |
| Fourth | 7 | New England | 63.22 | 23.16 |
| Fifth | 5 | South East | 58.96 | 25.34 |
| Sixth | 3 | South Central | 57.75 | 28.72 |
| Seventh | 1 | North West | 56.67 | 26.54 |

It was found that the Mid-Atlantic and Mid-West regions have a greater degree of implementation of the recommendations than the rest of the regions, particularly that of the North West and South Central. Table 5, below, provides a list of questions implemented at the 80 per cent or above level, for each region. It will be noted that questions 6, 10, 11, 14, 30, and 32 are being implemented at the 80 per cent level or above, in all regions.

TABLE 5 Questions implemented above 80 per cent in each region.

| REGIONS | | | | | | |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | 1 | | 1 | | 1 | 1 |
| 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| 7 | 7 | 7 | 7 | | 7 | 7 |
| 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| 13 | 13 | 13 | 13 | | 13 | 13 |
| 14 | 14 | 14 | 14 | 14 | 14 | 14 |
| 21 | | 21 | 21 | 21 | 21 | |
| 24 | 24 | 24 | 24 | | 24 | 24 |
| 27 | | | | | | |
| | 28 | 28 | 28 | 28 | 28 | 28 |
| 29 | | | 29 | | | |
| 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| 32 | 32 | 32 | 32 | 32 | 32 | 32 |

The next question is whether or not these differences between regions are significant. Table 6 indicates the probability of a significant difference between regions. Note that with a 95 per cent criterion, no two regions are significantly different; with almost 90 per cent criterion, only regions 1 and 6, and 3 and 6 are significantly different; and with almost 85 per cent criterion, only regions 4 and 5, 3 and 4, 2 and 3, 1 and 6, 1 and 4, and 1 and 2 are significantly different; and with almost 80 per cent criterion, only regions 5 and 7 are significantly different (Table 6).

TABLE 6 Binary inter-comparisons of the degree of implementation Q by the various regions of the country with the probability of significant difference of Q's between regions

| Regions Being Compared | S or Mean of Any Two Regions | Student "t" for Any Two Regions | Probability of Significant Difference of % |
|---|---|---|---|
| 1 and 2 | 26.46 | -1.18 | ≃ 85 |
| 1 and 4 | 25.69 | -1.24 | ≃ 85 |
| 1 and 6 | 24.74 | -1.64 | ≃ 90 |
| 2 and 3 | 27.55 | 0.97 | ≃ 85 |
| 3 and 4 | 26.78 | -1.03 | ≃ 85 |
| 3 and 6 | 25.83 | -1.40 | ≃ 90 |
| 4 and 5 | 25.09 | 0.90 | ≃ 85 |
| 5 and 7 | 24.25 | -0.71 | ≃ 80 |

Another means of circumventing the problems of small sample size is to consider the entire United States as a whole, as though it were a single state, in order to obtain the percentage "YES" for each question. Furthermore, to compare school districts of different sizes, Table 7 displays the percentage, question-by-question, of implementation for school sizes over (O) and under (U) twenty thousand pupils, as well as the composite (COMP) for the entire United States.

At the top of Table 7 is N, the number of schools in each size, and Q, the average of the percentage yes, for each column (the sum of each column divided by 33). This is expressed quantitatively as

$$(\%Y_i) = \left(\sum_{j=1}^{33} A_{ij}\right) \cdot 100/N$$

where $A_{ij} = 1$ if the answer is "YES" to the i th question for the response of school district "j;" $A_{ij} = 0$ otherwise, and N is the number of school districts. The average for each size is given by

$$Q = \left(\sum_{i=1}^{33} \%Y_i\right)/33$$

This is an average over school districts and questions. This is probably the most stable of quantities discussed in this paper.

TABLE 7 Percentage of implementation for the entire United States

| Question | N: / Q: | 129 / 63.8 | 89 / 61.3 | 208 / 62.8 |
|---|---|---|---|---|
| 1 | | 83 | 69 | 77 |
| 2 | | 55 | 59 | 57 |
| 3 | | 62 | 59 | 61 |
| 4 | | 41 | 34 | 38 |
| 5 | | 62 | 60 | 61 |
| 6 | | 89 | 94 | 91 |
| 7 | | 82 | 87 | 84 |
| 8 | | 48 | 49 | 48 |
| 9 | | 51 | 39 | 46 |
| 10 | | 88 | 89 | 88 |
| 11 | | 97 | 92 | 95 |
| 12 | | 68 | 67 | 67 |
| 13 | | 86 | 74 | 81 |
| 14 | | 94 | 96 | 95 |
| 15 | | 11 | 14 | 12 |
| 16 | | 50 | 44 | 48 |
| 17 | | 60 | 52 | 57 |
| 18 | | 46 | 46 | 46 |
| 19 | | 53 | 66 | 58 |
| 20 | | 56 | 53 | 55 |
| 21 | | 85 | 79 | 93 |
| 22 | | 51 | 53 | 52 |
| 23 | | 48 | 53 | 50 |
| 24 | | 89 | 82 | 86 |
| 25 | | 33 | 25 | 30 |
| 26 | | 28 | 31 | 29 |
| 27 | | 56 | 47 | 52 |
| 28 | | 91 | 84 | 88 |
| 29 | | 72 | 60 | 67 |
| 30 | | 88 | 86 | 87 |
| 31 | | 19 | 14 | 17 |
| 32 | | 94 | 97 | 95 |
| 33 | | 54 | 51 | 53 |
| | | U | O | COMP |

Presented in Table 8 is the ranking of each of the 33 questions, for each of the three sizes of school districts (under and over twenty thousand, and the composite for the United States). Thus, for the school district of under twenty thousand pupils, question 11 is implemented most frequently and question 15 is implemented least frequently; similarly, the over twenty thousand school district and the composite for the entire United States can be derived from reading Table 8.

TABLE 8 Ranking the questions for the entire United States with partitions indicating a shift from one level of implementation to the next; also, indicating significant differences in the percentage of implementation

| QUESTIONS | | |
|---|---|---|
| 11 | 32 | 11 |
| 14 | 14 | 14 |
| 32 | 6 | 32 |
| 28 | 11 | 6 |
| 6 | 10 | 10 |
| 24 | 7 | 23 |
| 10 | 30 | 30 |
| 30 | 28 | 24 |
| 13 | 24 | 7 |
| 21 | 21 | 21 |
| 1 | 13 | 13 |
| 7 | 1 | 1 |
| 29 | 12 | 12 |
| 12 | 19 | 29 |
| 3 | 5 | 3 |
| 5 | 29 | 5 |
| 17 | 2 | 19 |
| 20 | 3 | 2 |
| 27 | 20 | 17 |
| 2 | 22 | 20 |
| 33 | 23 | 33 |
| 19 | 17 | 22 |
| 9 | 33 | 27 |
| 22 | 8 | 23 |
| 16 | 27 | 8 |
| 8 | 18 | 16 |
| 23 | 16 | 9 |
| 18 | 9 | 18 |
| 4 | 4 | 4 |
| 25 | 26 | 25 |
| 26 | 25 | 26 |
| 31 | 15 | 31 |
| 15 | 31 | 15 |
| U | O | COMP |

An examination of Table 9 reveals that certain questions are being implemented for all three groups, under and over twenty thousand pupils in a school district and for the composite of the entire United States. Similarly, some questions are barely being implemented.

It would be interesting to look at the content of these questions implemented at the 80 per cent level or above and those at the twenty per cent level or below to see if these questions fall into some pattern or are related to some special topic.

Table 9 lists the number of questions, ranked according to implementation. The last two questions in each column are implemented at below the twenty per cent level. For the under twenty thousand pupils, questions one up to 11, at the top of the column, are implemented at above the 80 per cent level; for the over twenty thousand, questions 24 up to 32 are implemented above the 80 per cent level, and for the composite group, questions 13 up to 31 are implemented above the 80 per cent level.

It can be seen from Table 9 that only two questions fall at the twenty per cent level or below. These questions are, for 15, "Extensive use of T.V. is part of the reading program," and for question 31, "In order to obtain permanent teacher certification, an M.A. or M.A.T. degree is required."

TABLE 9 Questions ranked at the 80 per cent level of implementation or above and at the 20 per cent level of implementation or below for the entire United States

| QUESTIONS | | |
|---|---|---|
| **Most Implemented** | | |
| 11 | 32 | 11 |
| 14 | 14 | 14 |
| 32 | 6 | 32 |
| 28 | 11 | 6 |
| 6 | 10 | 10 |
| 24 | 7 | 28 |
| 10 | 30 | 30 |
| 30 | 28 | 24 |
| 13 | 24 | 7 |
| 21 | | 21 |
| 1 | | 13 |
| 7 | | |
| **Least Implemented** | | |
| 31 | 15 | 31 |
| 15 | 31 | 15 |
| U | O | COMP |

Both questions 15 and 31 are at the bottom of the table for all three sizes (under, over, and composite). Both of these items involve some kind of expenditure, either by the teacher, by the school corporation, or by the parents. In the case of question 15, the extensive use of T.V., the teacher would not likely spend any money for this; but, it would be up to the community, through appropriations for schools. It is apparent that the community which provides funds for the running of the schools is not prepared to provide an amount earmarked for this purpose.

Question 31, the requiring of an M.A. or M.A.T. degree for permanent certification spans an expenditure for either teacher or community, or a combination. In a goodly number of communities examined, the state has made this degree obligatory, and the school corporations simply fall in line; this state requirement seems to place the burden of expense upon the teacher. On the other hand, where it is desired by the school corporation, in order to up-grade the quality of teacher preparation, a good part, at least one half, of fees and expenses are borne by the school corporation, or it is in conjunction with a government grant, often in an inner-city situation.

There is a pausity of a well-defined structure for the implementation of questions above the 80 per cent level. Question 32 relates to a general topic which could be called "Special Services;" this question deals with the provision for in-service education programs; however, there are no other questions from this topic which are being implemented at this level. Again, question 13 falls into a topic area which could be called "Grouping of Children in the Classroom" and again, this is the only question being implemented in this topic at this level.

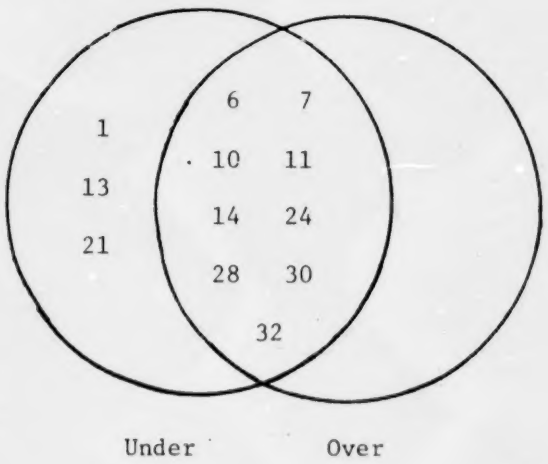
In the case of questions one and thirty, which are concerned with the topic of "Parents," it is noted that this is a fairly comprehensively covered topic. Question 29, which also would fit into this topic, is, however, not being implemented at the 80 per cent level or higher. Two questions, 21 and 24, fall under the topic of "Curriculum;" however, there are many other questions which fit nicely into this group (2, 3, 9, 14, 22, and 23) which are not being implemented and so there appears to be no trend to this implementation.

The most promising group of questions, which fall into the broad topic of "Materials," covers questions 10, 11, 14, and 21. The only other questions which are omitted. and would logically belong to this topic, are questions 20 and 27. The fact that four out of six questions from this topic are being implemented suggests that there is a pattern of implementation here and that these questions, do, indeed, fit together.

There are considerably more questions implemented at the 80 per cent level or above than were below the 20 per cent level: twelve for the under twenty thousand, nine for the over twenty thousand.

A way of displaying the overlap between these two groups is through the use of the Venn diagram. In this diagram, it is possible to see which questions are being implemented by the under and over groups, respectively. This has already been done for the composite group. Figure 1, below, displays this information.

FIGURE 1 Diagram of questions implemented at the 80 per cent level or higher for the under and over twenty thousand, respectively



Finally, it is interesting to note the trends for the future. What amount of implementation can be expected? Table 10 presents this information for each region for an expected date of 1972.

TABLE 10 Number of "IN 1972" replies for each state

| REGION | Number of "IN 1972" replies |
|---|---|
| 1 | 0 |
| 2 | 16 |
| 3 | 2 |
| 4 | 45 |
| 5 | 9 |
| 6 | 12 |
| 7 | 9 |

Table 11 indicates a ranking of states for the demographic inputs of per capita income, teacher salary, and education per capita expenditures. For the most part, it was found that all three items appeared to influence the amount of implementation. The regions that were lowest in percentage of income spent for teacher salaries, and per capita income were also those regions where the least amount of implementation took place.

TABLE 11 The three demographic variables ranked according to state, in dollars

| State | Per Capita Income | State | Teacher Salary | State | Education Per Capita Expenditure |
|---|---|---|---|---|---|
| Connecticut | 4817 | Alaska | 15176 | Alaska | 643 |
| New York | 4731 | New York | 13450 | Delaware | 440 |
| Alaska | 4586 | California | 12700 | Wyoming | 400 |
| New Jersey | 4577 | Maryland | 11787 | Minnesota | 378 |
| Hawaii | 4557 | Illinois | 11564 | Washington | 374 |
| Nevada | 4552 | Michigan | 11477 | New York | 355 |
| Illinois | 4486 | Nevada | 11472 | Wisconsin | 349 |
| California | 4444 | Minnesota | 11315 | Utah | 343 |
| Delaware | 4353 | Connecticut | 11200 | S. Dakota | 338 |
| Massachusetts | 4343 | Hawaii | 11114 | New Mexico | 337 |
| Maryland | 4287 | Delaware | 11100 | Michigan | 337 |
| Michigan | 4133 | New Jersey | 11100 | Colorado | 336 |
| Ohio | 3977 | Washington | 11056 | Iowa | 331 |
| Washington | 3964 | Pennsylvania | 11000 | Arizona | 328 |
| Pennsylvania | 3942 | Arizona | 10863 | Oregon | 324 |
| Rhode Island | 3918 | Wisconsin | 10812 | Maryland | 324 |
| Kansas | 3918 | Indiana | 10800 | Vermont | 315 |
| Minnesota | 3855 | Rhode Island | 10800 | Montana | 313 |
| Colorado | 3831 | Iowa | 10564 | N. Dakota | 310 |
| Nebraska | 3792 | Colorado | 10280 | California | 309 |
| Indiana | 3787 | Massachusetts | 10000 | Illinois | 297 |
| Iowa | 3750 | Oregon | 9950 | Indiana | 295 |
| Oregon | 3718 | Virginia | 9842 | Connecticut | 293 |
| Missouri | 3713 | Ohio | 9800 | Kansas | 285 |
| Wisconsin | 3712 | Florida | 9740 | New Jersey | 281 |
| Wyoming | 3674 | Wyoming | 9700 | Nebraska | 277 |
| Florida | 3664 | Louisiana | 9388 | Rhode Island | 272 |
| Virginia | 3650 | Missouri | 9329 | Nevada | 271 |
| New Hampshire | 3620 | N. Carolina | 9314 | Pennsylvania | 270 |
| Arizona | 3620 | New Hampshire | 9313 | Hawaii | 268 |
| Texas | 3573 | Maine | 9248 | Virginia | 261 |
| Vermont | 3448 | Montana | 9181 | Massachusetts | 255 |
| Montana | 3444 | Vermont | 9128 | Idaho | 251 |
| Georgia | 3354 | Texas | 9029 | Florida | 251 |
| Oklahoma | 3332 | Utah | 8990 | Maine | 250 |
| Idaho | 3264 | Nebraska | 8951 | New Hampshire | 249 |
| Maine | 3242 | Georgia | 8916 | Texas | 246 |
| Utah | 3221 | Kansas | 8899 | Georgia | 245 |
| N. Carolina | 3218 | New Mexico | 8600 | Ohio | 243 |
| S. Dakota | 3164 | W. Virginia | 8505 | Oklahoma | 241 |
| New Mexico | 3127 | Tennessee | 8450 | Missouri | 241 |
| Kentucky | 3099 | N. Dakota | 8362 | W. Virginia | 238 |
| Tennessee | 3075 | S. Carolina | 8310 | Louisiana | 237 |
| N. Dakota | 3069 | Alabama | 8262 | N. Carolina | 236 |
| Louisiana | 3054 | Oklahoma | 8200 | Kentucky | 233 |
| W. Virginia | 3034 | Kentucky | 8150 | S. Carolina | 228 |
| S. Carolina | 2933 | S. Dakota | 8034 | Mississippi | 217 |
| Alabama | 2876 | Idaho | 7895 | Alabama | 217 |
| Arkansas | 2864 | Arkansas | 7613 | Tennessee | 214 |
| Mississippi | 2597 | Mississippi | 7145 | Arkansas | 186 |

Finally, we can examine these data to see which of the five variables, size, region, and the three demographic variables, per capita income, teacher salary, and per capita expenditure, influence implementation.

TABLE 12 Questions for which the percentage of "YES" responses varies with the five stated variables with probability at least 95 per cent.

| Question | Size | Region | Teacher Salary | Per Capita Income | Per Capita Expenditure |
|---|---|---|---|---|---|
| 1 | | X | X | X | X |
| 2 | | X | | X | |
| 3 | | X | | | |
| 4 | | X | | | |
| 9 | X | | | | |
| 10 | | | | X | |
| 11 | X | | | | |
| 13 | X | | | | |
| 14 | | | X | | |
| 15 | | | X | | |
| 22 | | X | | | X |
| 23 | | X | | X | |
| 26 | | X | | X | |
| 27 | X | X | | X | X |
| 28 | | X | | | |
| 29 | | X | X | X | X |
| 31 | | | X | X | X |
| 32 | | X | X | | X |

## Conclusions

The concern of this paper has been the evaluation of the actual implementation of recommendations from the 1963 Harvard Report on Reading. This paper has concerned itself with a general survey of school districts randomly selected from those originally surveyed in The First R; 33 of the 45 questions raised in The First R are reviewed here.

It has been shown that the data received from a given state raise immediate significance questions and the responses will fluctuate between school districts of a given state as well as between neighboring states. Measures of significance, fluctuation, and trends can be made more reliably by examining the replies throughout the entire United States as though it were a single state. This averaging procedure is carried out so that conclusions can be made more reliably.

An examination of these questions reveals that teachers and administrators are concerned with the continual revision and up-dating of books, reference materials. papers, and magazines. There is concern for using some of the newer approaches in the handling of these materials, such as programmed materials and finally. there is an attempt to supply ample reading material through the effort of expanding of library facilities. The desire to have teachers participate in the development of and continued re-examination of the curriculum materials suggests that the administrators believe that teachers in-the-field, who have day-to-day contact with the children, are in the best position to evaluate materials.

Finally, this particular topic, "Materials." is one which does put a financial burden on the school corporations; there is some expenditure for

materials and new books. There does not, however, appear to be a distinction between the school corporations of under and over twenty thousand pupils as to the amount of implementation.

For some regions, the larger school districts are doing a higher percentage of implementation and for others, the smaller. Comparing districts of the same size group across regions shows significant regional differences and trends.

Most of the cases of greater implementation are for the under twenty thousand districts, raising the question as to whether the smaller school districts, possibly suburban, are more financially capable than the larger, but not inner-city, school. (Here, trends indicate that innovations occur in inner-city districts, probably because of government funding).

Finally, it was found that teachers' salaries and percent of expenditures for education influence the percentage of implementation of these recommendations.

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